

# Abstract

A porous material 1 wherein silicon carbide particles 2 as an aggregate are bonded with one another via silicon nitride 3 as a binder in such a state that pores 5 are present between the silicon carbide particles 2, wherein no columnar silicon nitride (silicon nitride whisker) is formed on the surface of the silicon nitride 3 within each pore 5, or that, even when silicon nitride whiskers are inevitably formed there, the number of the columnar silicon nitride having a thickness of more than 2  $\mu\text{m}$  and an aspect ratio of less than 10 is greater than that of the columnar silicon nitride having a thickness of 2  $\mu\text{m}$  or less or an aspect ratio of 10 or more. The present invention provides a porous material superior in heat resistance and gas permeability, a method for production thereof, and a honeycomb structure.